

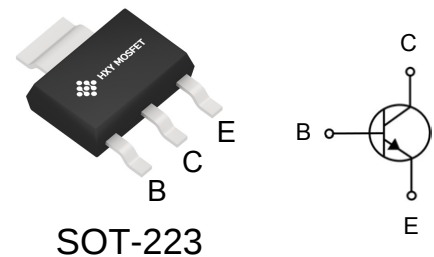


## Features

- Collector Current:  $I_C=1A$
- Power Dissipation of 1.5W

## Package Marking and Ordering Information

| Product ID | Pack    | Marking | Qty(PCS) |
|------------|---------|---------|----------|
| BCP56-16TX | SOT-223 | BCP56   | 1000     |



## Maximum Ratings (Ta=25 unless otherwise noted)

| Parameter                                   | Symbol          | Limit    | Unit          |
|---------------------------------------------|-----------------|----------|---------------|
| Collector-Base Voltage                      | $V_{CBO}$       | 100      | V             |
| Collector-Emitter Voltage                   | $V_{CEO}$       | 80       | V             |
| Emitter-Base Voltage                        | $V_{EBO}$       | 5        | V             |
| Collector Current                           | $I_C$           | 1        | A             |
| Collector Power Dissipation                 | $P_C$           | 1.5      | W             |
| Thermal Resistance From Junction To Ambient | $R_{\theta JA}$ | 83.3     | $^{\circ}C/W$ |
| Junction Temperature                        | $T_J$           | 150      | $^{\circ}C$   |
| Storage Temperature                         | $T_{stg}$       | -55~+150 | $^{\circ}C$   |

## Classification Of $h_{FE}$

|         |                              |                              |
|---------|------------------------------|------------------------------|
| Rank    | BCP54-10, BCP55-10, BCP56-10 | BCP54-16, BCP55-16, BCP56-16 |
| Range   | 63-160                       | 100-250                      |
| Marking | BCP54-10, BCP55-10, BCP56-10 | BCP54-16, BCP55-16, BCP56-16 |

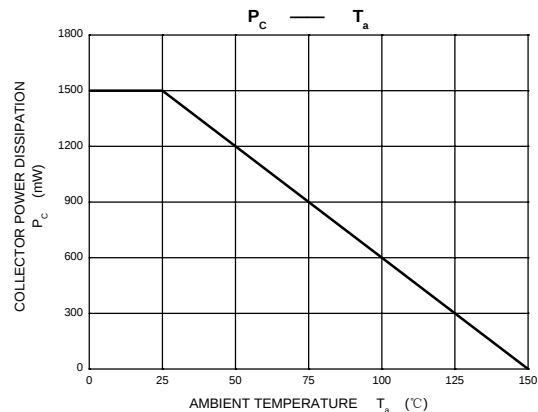
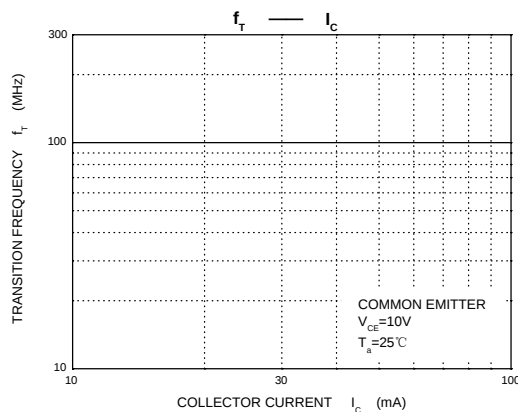
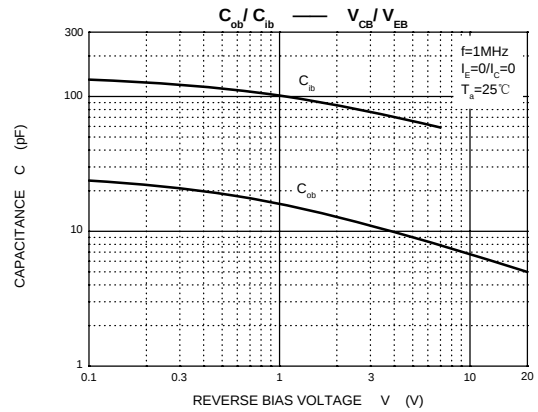
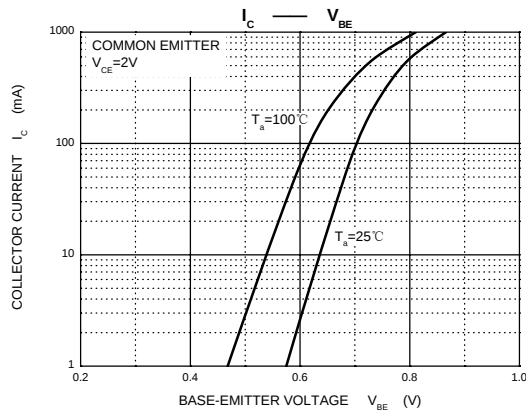
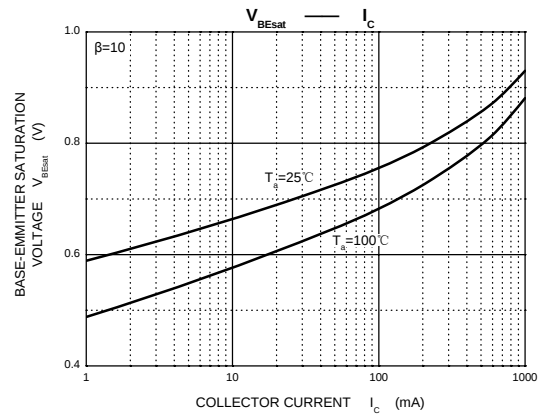
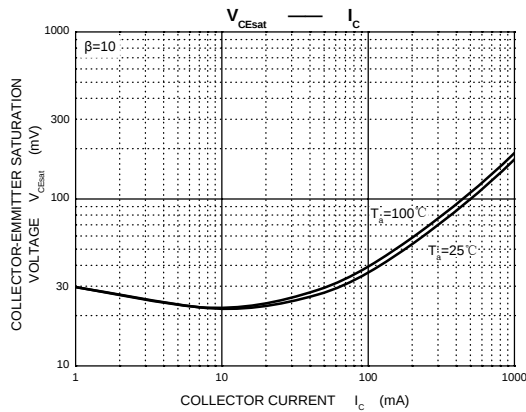
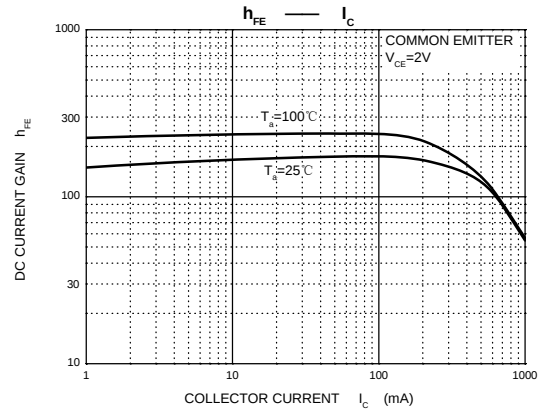
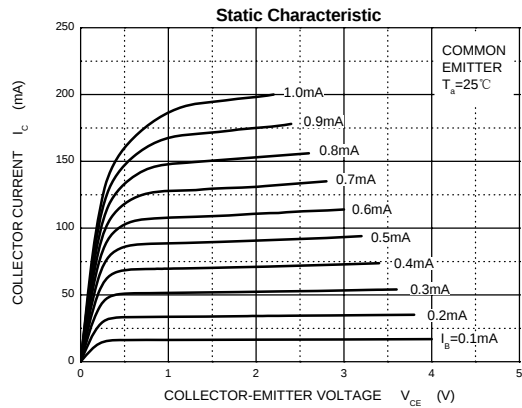


**Electrical Characteristics(Ta=25 unless otherwise specified)**

| Parameter                            | Symbol        | Test conditions                        | Min | Max | Unit |
|--------------------------------------|---------------|----------------------------------------|-----|-----|------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C = 0.1mA, I_E = 0$                 | 100 |     | V    |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C = 10mA, I_B = 0$                  | 80  |     | V    |
| Base-emitter breakdown voltage       | $V_{(BR)EBO}$ | $I_E = 10\mu A, I_C = 0$               | 5   |     | V    |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB} = 30V, I_E = 0$                |     | 100 | nA   |
| DC current gain                      | $h_{FE(1)}$   | $V_{CE} = 2V, I_C = 5mA$               | 25  |     |      |
|                                      | $h_{FE(2)}$   | $V_{CE} = 2V, I_C = 150mA$             | 63  | 250 |      |
|                                      | $h_{FE(3)}$   | $V_{CE} = 2V, I_C = 500mA$             | 25  |     |      |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 500mA, I_B = 50mA$              |     | 0.5 | V    |
| Base-emitter voltage                 | $V_{BE}$      | $V_{CE} = 2V, I_C = 500mA$             |     | 1   | V    |
| Transition frequency                 | $f_T$         | $V_{CE} = 10V, I_C = 50mA, f = 100MHz$ | 100 |     | MHz  |

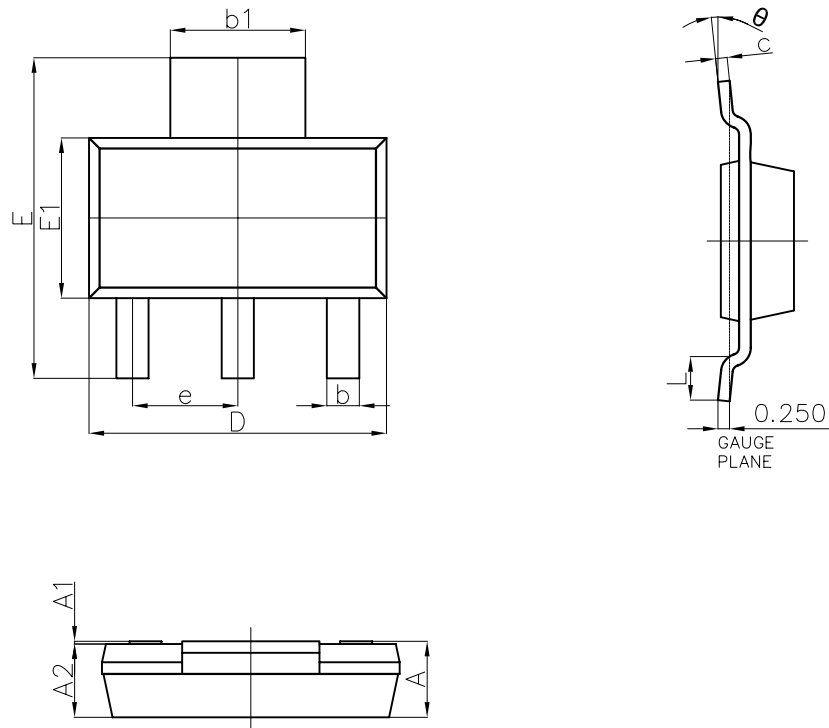


## Typical Characteristics





## Package Dimensions SOT-223



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min.                      | Max.  | Min.                 | Max.  |
| A      | —                         | 1.800 | —                    | 0.071 |
| A1     | 0.020                     | 0.100 | 0.001                | 0.004 |
| A2     | 1.500                     | 1.700 | 0.059                | 0.067 |
| b      | 0.660                     | 0.840 | 0.026                | 0.033 |
| b1     | 2.900                     | 3.100 | 0.114                | 0.122 |
| c      | 0.230                     | 0.350 | 0.009                | 0.014 |
| D      | 6.300                     | 6.700 | 0.248                | 0.264 |
| E      | 6.700                     | 7.300 | 0.264                | 0.287 |
| E1     | 3.300                     | 3.700 | 0.130                | 0.146 |
| e      | 2.300(BSC)                |       | 0.091(BSC)           |       |
| L      | 0.750                     | —     | 0.030                | —     |
| θ      | 0°                        | 10°   | 0°                   | 10°   |



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